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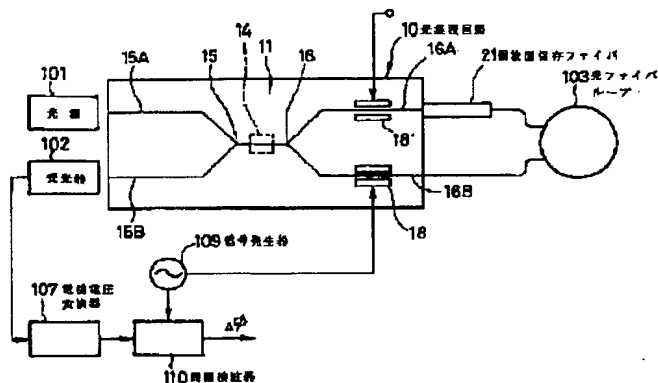
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TITLE : OPTICAL FIBER GYRO AND OPTICAL INTEGRATED CIRCUIT



ABSTRACT : PURPOSE: To build a depolarizer function in an optical IC and to miniaturize an optical fiber gyro by a method wherein a polarization-preserving fiber is arranged across the optical IC and an optical fiber loop.

CONSTITUTION: An optical IC 10 is provided with two Y-branches 15, 16 and with two phase modulators 18, 18, and the Y-branches 15, 16 are composed of waveguides formed on the surface of a board 11. A light source 101 is arranged at the tip of one branch 15A for the Y-branch 15, and a photodetector 102 is arranged at the tip of the other branch 16B. A polarization-preserving fiber 21 is connected to the tip of one branch 16A for the Y-branch 16, and an optical fiber loop 103 is connected to the other end of the fiber 21. That is to say, the polarization-preserving fiber 21 is connected across the optical IC 10 and the optical fiber loop 103. The optical fiber loop 103 is connected to the other end of the other branch 16B for the Y-branch 16. The optical IC 10 which comprises the polarization-preserving fiber 21 has the same function as a yaw-type depolarizer, and it makes incident polarized light unpolarized.

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